IN THE CLAIMS

1. (currently amended) A network access control method for a network system comprising:

network apparatuses having packet filtering functions;

a service server connected with an IP network via the network apparatus, providing [[a]] contents on the service server to a user;

a user terminal connected with the IP network via the network apparatus, for the user to utilize ~~therethrough the service provided by said~~ the contents on the service server;

a reception server connected with the IP network via the network apparatus, receiving an access request to the contents on the service server from the user ~~for said~~ on behalf of the service server; and

an access control server controlling the network apparatus for a limitation of the access request to the contents on the service server,

said method comprising the steps of:

a) said access control server first denying all the access requests directed to the contents on the service server via the network apparatus;

b) said reception server receiving access request information to the contents on the service server from said user terminals, and ~~holding it~~ registering them in an access list; and

~~b)~~ c) said access ~~controlling~~ control server ~~performing traffic control such as to~~ extracting such an amount of the access request information from said access list, based on a processing capability of ~~said~~ the service server and a traffic amount for ~~said~~ the service server, ~~such an amount of the access request information held by said reception server as that which said~~

~~service server can optimally deal with, so as to allow the access for said service server~~ as that said service server can optimally deal with, and performing traffic control to the network apparatus connected with the user terminals so as to allow the user terminals to directly access the contents on the service server in the other of access requests.

2. (currently amended) A network system comprising:

network apparatuses having packet filtering function;

a service server connected with an IP network via the network apparatus, providing [[a]] contents on the service server to a user;

a user terminal connected with the IP network via the network apparatus, for the user to utilize the ~~service provided by said~~ contents on the service server;

a reception server connected with the IP network via the network apparatus, receiving an access request to the contents on the service server from the user ~~for said~~ on behalf of the service server; and

an access control server controlling the network apparatuses for a limitation of the access request to the contents on the service server, wherein:

said access control server first denies all the access requests directed to the contents on the service server via the network apparatus;

said reception server ~~having an access registering part which~~ receives access request information to the contents on the service server from said user terminals, and ~~holds it~~ registers them in an access list; and

said access ~~controlling~~ control server ~~having a filtering optimizing part which performs traffic control such as to~~ extracts such an amount of the access request information from said

access list, based on a processing capability of ~~said~~ the service server and a traffic amount for ~~said~~ the service server, ~~such an amount of the access request information held in said access registering part as that said service server can optimally deal with, so as to allow the access for said service server~~ as that said service server can optimally deal with, and performs traffic control to the network apparatus connected with the user terminals so as to allow the user terminals to directly access the contents on the service server in the other of access requests.

3. (currently amended) A server apparatus applicable as said reception server of said network system claimed in claim 2, comprising:

~~an access list holding access request information from a user terminal;~~

a user profile holding the user information including a user class for each user;

an access receiving part receiving ~~an~~ the access request to the contents on the service server from the user ~~terminal~~ on behalf of the service server;

an access registering part registering the access request information received via said access receiving part into said access list in order of the reception;

a user class extracting part extracting an IP address from the received access request information, and identifying the user by using the extracted IP address so as to extract the user class from said user profile; and

a by-user-class registering part registering the access request information received via said access receiving part into said access list based on the user class extracted through said user class extracting part.

4. (original) The reception server as claimed in claim 3, further comprising:

an estimated waiting time calculating part calculating an estimated waiting time, from the number of the users waiting, according to a position of said access list at which the access request received from the user terminal is registered; and

an access information reporting part reporting the calculated estimated waiting time to the user, and reporting to the user that the access can be performed after the estimated waiting time has elapsed.

5. (original) The reception server as claimed in claim 3, further comprising:

an access confirming part determining whether or not the access request is to be registered in said access list, when waiting is needed, after receiving the access request from the user terminal; and

a waiting confirmation inquiring part inquiring to the user for said access confirming part to make the determination.

6. (currently amended) A[[n]] server apparatus applicable as said access control server of said network system claimed in claim 2, comprising:

an access information database holding information concerning [[a]] the processing capability of [[a]] the service server and a maximum permissible access number calculated based on the processing capability of the service server;

a traffic control part controlling [[a]] the network apparatus;

a static permissible access number calculating part calculating the maximum permissible access number based on the information concerning the processing capability of the service server; and

a filtering optimizing part reading such an amount of the access request information from [[an]] the access list holding the access request information from the user terminals in [[a]] the reception server, from the top, as that for the maximum permissible access number, producing packet filtering setting information for the users making access requests to be able to access to the service server, and setting the produced information in the network apparatus via said traffic control part.

7. (original) The access control server as claimed in claim 6, further comprising:

a load and traffic monitoring part monitoring a load condition of the service server and a traffic condition of a network apparatus holding the service server; and

a dynamic permissible access number calculating part periodically performing communication with said load and traffic monitoring part so as to extract therefrom information of the load condition and traffic condition, and calculate the maximum permissible access number therefrom, and, also, registering the calculated maximum permissible access number in the access information database.

8. (original) The access control server as claimed in claim 6, further comprising:

a control information database holding control information which is used as a guideline for reading the access request information from the access list; and

a by-user-class access request reading part reading the access request information from the access list for each user class based on the control information extracted from said control information database, when the filtering optimizing part reads such an amount of the access

request information from the access list as that for the maximum permissible access number, in a case where the access request information is registered in the access list by user class.

9. (original) The access control server as claimed in claim 6, further comprising:

an effective timer setting part setting an effective timer for the access request information when the packet filtering setting information is produced; and

a filtering canceling part canceling the packet filtering control set in the network apparatus, when the effective timer has expired.

10. (currently amended) A server apparatus applicable as said service server ~~connected with an IP network via a network apparatus and providing a service to a user~~ of said network system claimed in claim 2, comprising:

a session finish determining part determining that a session performed with [[a]] the user terminal has finished; and

a session finish reporting part reporting to [[an]] the access control server that the session performed with the user terminal has finished.

11. (original) The reception server as claimed in claim 3, further comprising a user authenticating part determining, based on the user class extracted through the user class extracting part, whether or not the received access request is given from an unallowed user, and, reporting, when the access request is given from the unallowed user, this matter to the access control server.

12. (original) The access control server as claimed in claim 6, further comprising an access unallowance filtering setting part producing, based on a report from the user authenticating part of the reception server claimed in claim 11, the packet filtering setting information of access unallowance for the service server, and setting the produced information in the network apparatus.